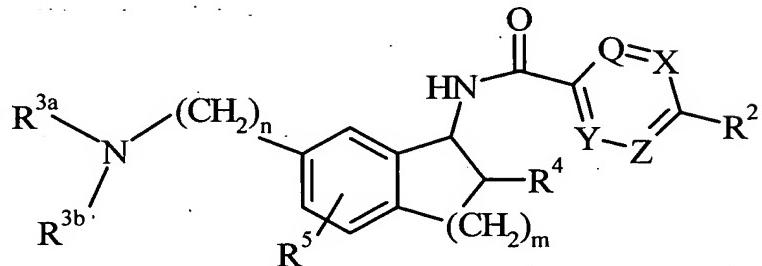


Amendments to the Claims

1. through 15. (Cancelled)

16. (New) A compound of the formula



I

wherein

Q, X, Y, and Z are independently selected from the group consisting of CR<sup>1</sup> and N, provided that no more than two of Q, X, Y, and Z are N and at least two of Q, X, Y, and Z are CH; or Y is CH, Z is CH, and the moiety "Q=X" represents "S" to form a thiophene ring;

R<sup>1</sup> is independently at each occurrence selected from the group consisting of hydrogen, halogen, C<sub>1</sub>-C<sub>4</sub> alkoxy, and C<sub>1</sub>-C<sub>4</sub> alkyl;

R<sup>2</sup> is selected from the group consisting of halogen; C<sub>1</sub>-C<sub>4</sub> alkoxy; C<sub>1</sub>-C<sub>4</sub> alkyl; C<sub>3</sub>-C<sub>8</sub> cycloalkyl; cyano; trifluoromethyl; pyridinyl optionally substituted with one to two substituents independently selected from the group consisting of halogen, C<sub>1</sub>-C<sub>4</sub> alkoxy, and C<sub>1</sub>-C<sub>4</sub> alkyl; thienyl optionally substituted with one substituent selected from the group consisting of halogen, C<sub>1</sub>-C<sub>4</sub> alkoxy, and C<sub>1</sub>-C<sub>4</sub> alkyl; phenyl optionally substituted with from one to three substituents independently selected from the group consisting of halogen, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> alkyl, trifluoromethyl, and cyano; and pyrrolyl optionally substituted with one to two substituents independently selected from the group consisting of halogen, C<sub>1</sub>-C<sub>4</sub> alkoxy, and C<sub>1</sub>-C<sub>4</sub> alkyl;

$R^{3a}$  is a radical of the formula

$(Z')-(Y')_q-(')_p-$

wherein:

$X'$  is selected from the group consisting of  $C_1-C_4$  alkandiyl and



$Y'$  is selected from the group consisting of O and S; and

$Z'$  is selected from the group consisting of  $C_1-C_4$  alkyl;  $C_3-C_8$  cycloalkyl optionally substituted with one to three substituents independently selected from the group consisting of halogen,  $C_1-C_4$  alkoxy,  $C_1-C_4$  alkyl, trifluoromethyl, cyano, and nitro; phenyl optionally substituted with one to three substituents independently selected from the group consisting of halogen,  $C_1-C_4$  alkoxy,  $C_1-C_4$  alkyl, trifluoromethyl, cyano, and nitro; heteroaryl optionally substituted with one or two substituents independently selected from the group consisting of halogen,  $C_1-C_4$  alkoxy, and  $C_1-C_4$  alkyl; and heterocycle optionally substituted with one or two substituents independently selected from the group consisting of halogen,  $C_1-C_4$  alkoxy, and  $C_1-C_4$  alkyl;

$p$  is zero or one;

$q$  is zero or one;

provided that when  $p$  is zero,  $q$  is zero;

$R^{3b}$  is selected from the group consisting of hydrogen,  $C_1-C_4$  alkyl, and benzyl;

or  $R^{3a}$  and  $R^{3b}$  are taken together with the nitrogen with which they are attached to form a heterocycle optionally substituted with one or two substituents independently selected from the group consisting of halogen,  $C_1-C_4$  alkoxy, and  $C_1-C_4$  alkyl;

$R^4$  is selected from the group consisting of hydrogen, hydroxy, and fluoro;

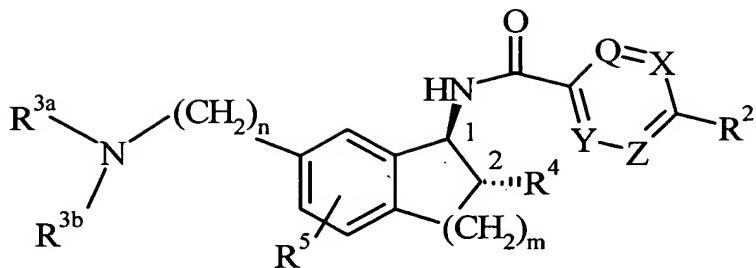
$R^5$  is selected from the group consisting of hydrogen, halogen,  $C_1-C_4$  alkoxy, and  $C_1-C_4$  alkyl;

$m$  is one or two;

$n$  is one or two;

or pharmaceutically acceptable addition salts thereof.

17. (New) The compound of Claim 16 wherein  $R^5$  is hydrogen,  $R^4$  is hydroxy,  $m$  is one, and which has the trans stereochemistry at the 1- and 2-position shown below:



18. (New) A compound according to Claim 16 wherein Q, X, Y, and Z are each CH.
19. (New) A compound according to Claim 17 wherein Q, X, Y, and Z are each CH.
20. (New) A compound according to Claim 16 wherein one of Q, X, Y, and Z is CF and the others are CH.
21. (New) A compound according to Claim 17 wherein one of Q, X, Y, and Z is CF and the others are CH.
22. (New) A compound according to Claim 16 wherein Q is CF, and X, Y, and Z are each CH.
23. (New) A compound according to Claim 17 wherein Q is CF, and X, Y, and Z are each CH.
24. (New) A compound according to Claim 16 wherein R<sup>2</sup> is phenyl optionally substituted with from one to three substituents independently selected from the group consisting of halogen, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> alkyl, trifluoromethyl, and cyano.
25. (New) A compound according to Claim 17 wherein R<sup>2</sup> is phenyl optionally substituted with from one to three substituents independently selected from the group consisting of halogen, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> alkyl, trifluoromethyl, and cyano.
26. (New) A compound according to Claim 16 wherein R<sup>2</sup> is phenyl.

27. (New) A compound according to Claim 17 wherein R<sup>2</sup> is phenyl.
28. (New) A compound according to Claim 26 wherein n is one.
29. (New) A compound according to Claim 27 wherein n is one.
30. (New) A pharmaceutical composition comprising a compound of Claim 16 and a pharmaceutically acceptable diluent.
31. (New) A method of treating disorders associated with the muscarinic receptors, comprising: administering to a patient in need thereof an effective amount of a compound of Claim 16.
32. (New) A method of treating cognitive disorders, comprising: administering to a patient in need thereof an effective amount of a compound of Claim 16.
33. (New) A method of treating Alzheimer's disease, comprising: administering to a patient in need thereof an effective amount of a compound of Claim 16.
34. (New) A method of treating schizophrenia, comprising: administering to a patient in need thereof an effective amount of a compound of Claim 16.
35. (New) A method of treating mild cognitive impairment, comprising: administering to a patient in need thereof an effective amount of a compound of Claim 16.
36. (New) A method of treating cognitive impairment associated with schizophrenia, comprising: administering to a patient in need thereof an effective amount of a compound of Claim 16.